



WLAN Enterprise Access Point Dual Radio .11g



Data Sheet
Part Number 96-10

Secure Wireless Connectivity for the Enterprise



- Enterprise class security and management
- Dual 802.11g radios – supports .11b and .11g clients at no compromise speeds & doubles the effective bandwidth
- Configurable Transmit Power to Maximise Bandwidth and Enhance Security

Madge - a complete WLAN Solution

The business benefits of wireless networking are clear. As business practices evolve to meet the demands of today and tomorrow, the only business certainty is change. Wireless networking is now seen as an invaluable tool to gain a competitive advantage.

Madge provides a complete, scalable, standards-based WLAN solution for organizations planning to integrate a wireless network with their existing wired network.

In addition, Madge's WLAN intrusion detection products will identify authorized and unauthorized wireless activity, safeguarding vital corporate data from internal or external attack.

The WLAN Access Point

The Madge 802.11g Access Point bridges the organization's wired infrastructure and to the wireless network.

It contains two 802.11g radios that offer a variety of opportunities in configuration and ensure that the maximum bandwidth can be delivered in a very cost effective way in enterprise deployments. A dual radio approach allows a mixed 'real estate' of 802.11g and 802.11b client devices to be able to operate at their optimum rates. In installations where there are high densities of clients then the Access Point can effectively give twice the capacity of a standard single radio access point or port. To further enhance the bandwidth in high density client installations then Configurable Transmit Power (CTP) can be utilized to implement a 'micro cell' architecture where the Access Point's sphere of influence is reduced thus allowing more to be installed in a given building or facility. The additional benefit of CTP is that, with careful planning, the wireless

coverage 'bleed' area into the parking lot or neighboring companies' premises can be minimised – this reduces the potential of malicious or 'accidental' users that have not been authorized to access network.

The WLAN Access Point contains features that necessary for Secure Enterprise Networking, including an SNMP management capability, WPA and 802.1x support, MAC Access Control, and a discovery protocol that enables full and simple integration with the Madge Enterprise Access Server management solution.

The WLAN Access Point utilizes 802.1x EAP-TLS to enable Mutual Certificate-based Authentication in conjunction with Madge WLAN Enterprise Access Server or with a third-party authentication server.

Ease of Configuration

The Enterprise Access Server can auto-discover and configure Madge Access Points, providing zero-configuration Security Policy enforcement, ensuring that only authorized clients gain access to the wired LAN.

Additionally, the WLAN Access Point can work in an "Open Access Mode", or "Simple WEP Key Mode" to allow easy (but less secure) access to public network resources, such as in a "hotspot" application. Here, the WLAN Access Point's "set and forget" robustness sets it apart from other Access Points.

Comprehensive Management Tools

The device comes with a CDROM containing useful tools. For example, to facilitate the installation and management of the WLAN Access Point in an environment where there is no WLAN Enterprise Access Server, it is supplied with a Wireless Network Manager tool.

This software will automatically discover Madge WLAN Access Points on the local network, and then allow the Network Manager to configure each one through a convenient GUI. All WLAN Access Points have built-in Web servers to allow individual configuration, but it is much easier to use the Wireless Network Manager when deploying more than two or three Access Points in a network.

A Wireless AP Browser tool allows the user to discover and list all the Madge Wireless Access Points on the local network, and see their IP addresses.

Security Features

Encryption

The AP interface supports the WPA (Wi-Fi Protected Access) standard as defined by the Wi-Fi Alliance (<http://www.wi-fi.org>). Both WPA-PSK (Pre-Shared Key) mode and full WPA mode are supported. WPA is composed of TKIP (Temporal Key Integrity Protocol) and IEEE 802.1x and serves as a successor to WEP for enhanced WLAN security.

64-bit and 128-bit WEP (Wired Equivalent Privacy) keys can be generated per session. When used with the Madge WLAN Enterprise Access Server the client can be periodically forced to seamlessly re-authenticate in order to obtain new WEP keys.

Authentication and Access Control

IEEE 802.1x EAP-TLS can be used for Mutual client/server Authentication using digital certificates, in conjunction with a RADIUS (Remote Authentication Dial-In User Service) server. Encryption keys are securely and automatically distributed when the Access Point is used with the WLAN Enterprise Access Server.

Wireless client isolation

Wireless-to-wireless traffic among the associated wireless clients can be blocked so that the wireless clients cannot see each other. This capability can be used in hotspots applications to prevent wireless hackers from attacking other wireless users' computers.

Access Control

SSID broadcasts can be disabled to prevent casual access by a client with a configuration setting for 'any' SSID. Inclusive or Exclusive MAC address based access control lists can be set up, which prevent unwanted or unknown clients from associating with the WLAN Access Point. MAC addresses can also be authorized via a RADIUS server.

Management

Interfaces

SNMP (Simple Network Management Protocol) MIB II, IEEE 802.1d, IEEE 802.1x, Enterprise MIB.

Utility Software

Windows-based Wireless Network Manager for configuring, monitoring, and diagnosing the local computer and neighbouring Access Points.

Web-based Network Manager for configuring and monitoring an Access Point. The management protocol is HTTP-based.

The WLAN Access Point supports UPnP, so that a Windows XP user can locate the Access Point in the 'My Network Places' dialog and use a Web browser to configure it.

Firmware Upgradeable

Upgrading firmware by HTTP or TFTP (Trivial File Transfer Protocol) or by Wireless Network Manager Utility.

- Zero Config with Madge Enterprise Access Server
- Integrated Power Over Ethernet (POE) means only a single Ethernet cable for installation
- WPA and 802.1X enabled

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Madge WLAN Security and Management

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Product Specifications

Standards	Wireless LAN: IEEE802.11g x 2 Ethernet: IEEE802.3u 10/100BaseTX
Frequency Range	2.4-2.4835 GHz (IEEE 802.11b: DSSS, IEEE 802.11g: OFDM)
Data Rate & Modulation	OFDM@54Mbps, CCK@11/5.5Mbps, DQPSK@2Mbps and DBSK@1Mbps
Operating Channels	USA: 1-11 (FCC), Canada: 1-11 (IC), Europe: 1-13 (ETSI), France: 10-13, Japan: 1-14
RF Connector	R-SMA
Security	64-bit and 128-bit WEP encryption, WPA (IEEE 802.1x/RADIUS and TKIP)
Ethernet Port	RJ-45 x 1 (10/100BaseTX) (Auto cross-over)
COM Port	RS232 x 1
Data Rates	1Mbps, 2Mbps, 5.5Mbps, 6Mbps, 9Mbps, 11Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps
Transmit Power	802.11b - 17dBm 802.11g - 6/9Mbps 17dBm, 12/18Mbps 15dBm, 24Mbps 14dBm, 36Mbps 14dBm, 48Mbps 12dBm, 54Mbps 12dBm
Receive Sensitivity	802.11b 8% FER@1Mbps -91dBm 8% FER@2Mbps -88dBm 8% FER@5.5Mbps -85dBm 8% FER@11Mbps -83dBm 802.11g 10% PER@6Mbps -88dBm 10% PER@9Mbps -87dBm 10% PER@12Mbps -84dBm 10% PER@18Mbps -82dBm 10% PER@24Mbps -79dBm 10% PER@36Mbps -75dBm 10% PER@48Mbps -69dBm 10% PER@54Mbps -68dBm
Client OS Support	Windows 95/98/2000/ME/NT/XP, Unix and Macintosh
Supported Protocols	NAT, PAP/CHAP, PPPoE, PPP, HTTP, DHCP, TCP/IP, RADIUS, DNS, NetBIOS, AppleTalk, and IPX/SPX
Operating Voltage	DC +12V or Power over Ethernet
Operational Modes	Dual AP
Physical Dimensions	220mm (L) x 142mm (W) x 40mm (H)
Temperature	Operating temperature: 0-55°C Storage temperature: -20-70°C
Humidity	5%-95% non-condensing in storage
Diagnostic LEDs	Power, LAN Link/ACT, 2 X RF Link/ACT, System Alive
EMC Compliance USA, Canada, Europe, EC, Norway & Switzerland	FCC Part 15 subpart C EN 300 328-2 V1.2.1 EN 301 489-1 V1.4.1 (references EN 301 489-17 V 1.2.1)
Safety USA / Canada, Europe, EC, Norway & Switzerland	CUL 60950-1 EN 60950-1

Ordering Information

Part No	Description
96-10	Enterprise Access Point Dual Radio .11g

Deploy
Protect
Be Safe

Madge Limited is a global supplier of advanced networking product solutions to enterprises, and is the market leader in Token Ring networking. Madge is pioneering next generation networking solutions, which enable the painless and secure deployment of wireless networks in enterprises while protecting customers' investments in existing LAN and Token Ring. Madge's principal business centres are located in Maidenhead, United Kingdom; Munich Germany and the USA. Information about Madge's complete range of products and services can be accessed at www.madge.com.

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